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Vol. 1

Nuclear Regulatory Commission 1989 Information Digest

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U.S. Nuclear Regulatory Commission

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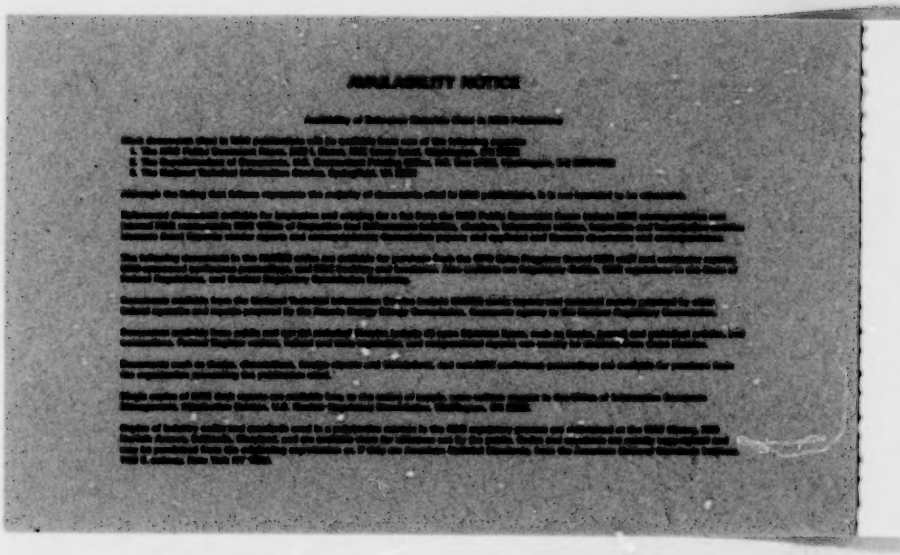

AVAILABILITY NOTICE

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Vol. 1

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Office of the Controller
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ABSTRACT

The Nuclear Regulatory Commission 1988 Information Digest provides summary information regarding the U.S. Nuclear Regulatory Commission, its regulatory responsibilities, and areas licensed by the Commission. This is the first of an annual publication for the general use of the NRC staff and is available to the public.

The Digest is divided into two parts: the first presents an overview of the U.S. Nuclear Regulatory Commission and the second provides data on NRC commercial nuclear reactor licensees and commercial nuclear power reactors worldwide.

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PART I: NRC OVERVIEW

MISSION

TO ENSURE THAT THE CIVILIAN USES OF NUCLEAR MATERIALS AND FACILITIES ARE CONDUCTED IN A MANNER CONSISTENT WITH PUBLIC HEALTH AND SAFETY, ENVIRONMENTAL QUALITY, NATIONAL SECURITY, AND ANTITRUST LAWS. THE MAJOR SHARE OF THE NRC's WORK IS FOCUSED ON REGULATING THE USE OF NUCLEAR ENERGY TO GENERATE ELECTRIC POWER.

STATUTORY AUTHORITY

- ATOMIC ENERGY ACT OF 1954, AS AMENDED.
- ENERGY REORGANIZATION ACT OF 1974, AS AMENDED
- URANIUM MILL TAILINGS RADIATION CONTROL ACT OF 1978.
- NUCLEAR NON-PROLIFERATION ACT OF 1978.
- LOW-LEVEL RADIOACTIVE WASTE POLICY ACT OF 1980.
- NUCLEAR WASTE POLICY ACT OF 1982.
- LOW-LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT OF 1985.
- DIPLOMATIC SECURITY AND ANTI-TERRORISM ACT OF 1986.
- NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1987.

MAJOR ACTIVITIES

NRC FULFILLS ITS RESPONSIBILITIES THROUGH A SYSTEM OF LICENSE AND REGULATORY ACTIVITIES THAT INCLUDE:

- LICENSING THE CONSTRUCTION AND OPERATION OF NUCLEAR REACTORS AND OTHER NUCLEAR FACILITIES.
- LICENSING THE POSSESSION, USE, PROCESSING, HANDLING, AND DISPOSAL OF NUCLEAR MATERIAL.
- DEVELOPING AND IMPLEMENTING RULES AND REGULATIONS THAT GOVERN LICENSED NUCLEAR ACTIVITIES.
- INSPECTING LICENSED FACILITIES AND ACTIVITIES.
- INVESTIGATING NUCLEAR INCIDENTS AND ALLEGATIONS CONCERNING ANY MATTER REGULATED BY NRC.
- ENFORCING NRC LICENSES AND REGULATIONS.
- CONDUCTING PUBLIC HEARINGS ON MATTERS OF NUCLEAR AND RADIOLOGICAL SAFETY, ENVIRONMENTAL CONCERN, COMMON DEFENSE AND SECURITY, AND ANTITRUST LAWS.
- DEVELOPING EFFECTIVE WORKING RELATIONSHIPS WITH THE STATES REGARDING REGULATION OF NUCLEAR MATERIAL.

ORGANIZATION

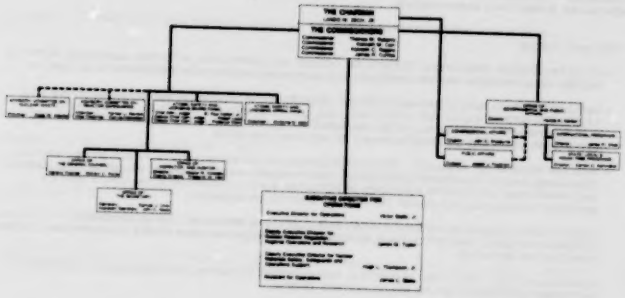
FIVE-MEMBER COMMISSION APPOINTED BY THE PRESIDENT WITH THE ADVICE AND CONSENT OF THE SENATE. STAGGERED, 5-YEAR TERM APPOINTMENTS.

PRINCIPAL OFFICES

- NUCLEAR REACTOR REGULATION - DIRECTS ALL LICENSE AND INSPECTION ACTIVITIES ASSOCIATED WITH THE DESIGN, CONSTRUCTION, AND OPERATION OF NUCLEAR POWER PLANTS AND NONPOWER REACTORS.
- NUCLEAR MATERIAL SAFETY AND SAFEGUARDS - DIRECTS ALL LICENSE AND INSPECTION ACTIVITIES ASSOCIATED WITH NUCLEAR FUEL CYCLE FACILITIES, USERS OF NUCLEAR MATERIAL, TRANSPORT OF NUCLEAR MATERIAL, LICENSE ACTIVITIES INVOLVING THE EXPORT OF SPECIAL NUCLEAR MATERIAL, AND DECONTAMINATION AND DECOMMISSIONING OF FACILITIES AND SITES.
- NUCLEAR REGULATORY RESEARCH - PROVIDES INDEPENDENT EXPERTISE AND INFORMATION FOR MAKING TIMELY REGULATORY JUDGEMENTS, RESOLVING SAFETY ISSUES AND DEVELOPING TECHNICAL REGULATIONS AND STANDARDS. ANTICIPATES PROBLEMS OF POTENTIAL SAFETY SIGNIFICANCE FOR WHICH NEW OR EXPANDED KNOWLEDGE CAN ASSIST THE NRC IN PURSUING ITS MISSION.
- ANALYSIS AND EVALUATION OF OPERATIONAL DATA - COLLECTS, ANALYZES, AND DISSEMINATES INFORMATION ABOUT THE OPERATIONAL SAFETY OF COMMERCIAL NUCLEAR POWER REACTORS AND CERTAIN NON-REACTOR ACTIVITIES.
- REGIONAL OFFICES - CARRY OUT INSPECTION, ENFORCEMENT, LICENSING, AND EMERGENCY RESPONSE PROGRAMS ORIGINATING IN THE HEADQUARTERS' OFFICES.

SEE ORGANIZATIONAL STRUCTURE ON PAGES 4-5.

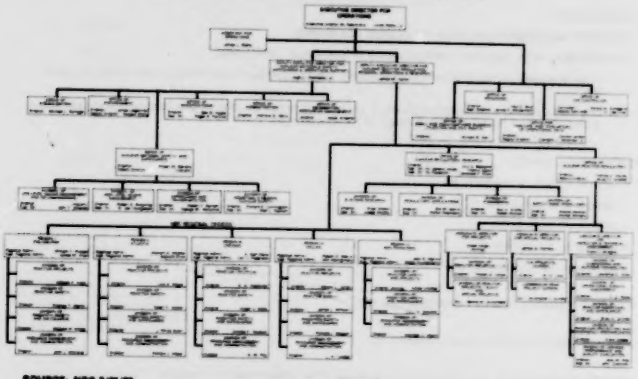
U.S. NUCLEAR REGULATORY COMMISSION



SOURCE: NRC 3/01/89

Exhibit 1

U.S. NUCLEAR REGULATORY COMMISSION



SOURCE: NRC 3/01/89

Exhibit 1

Page 5

GEOGRAPHIC LOCATIONS

HEADQUARTERS

- GREATER WASHINGTON, DC AREA (7 DIFFERENT LOCATIONS).
- PROCEEDING WITH TWO-STEP CONSOLIDATION IN ROCKVILLE, MARYLAND.
  - OVER ONE-HALF OF HEADQUARTERS EMPLOYEES CONSOLIDATED AT ONE WHITE FLINT NORTH BY APRIL 1995.
  - GSA EXPECTED TO CONCLUDE AGREEMENT WITH DEVELOPERS BY SPRING 1995 TO CONSTRUCT ADJACENT OFFICE BUILDING TO HOUSE REMAINDER OF HEADQUARTERS STAFF.

FIVE REGIONAL OFFICES

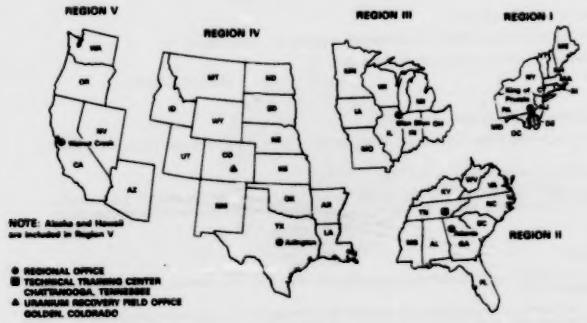
- REGION I, KING OF PRUSSIA, PA.
- REGION II, ATLANTA, GA.
- REGION III, GLEN ELLYN, IL.
- REGION IV, ARLINGTON, TX.
- REGION V, WALNUT CREEK, CA.

TECHNICAL TRAINING CENTER - CHATTANOOGA, TN.

URANIUM RECOVERY FIELD OFFICE - GOLDEN, CO.

RESIDENT INSPECTORS AT ALL NUCLEAR POWER PLANT SITES (SEE EXHIBIT 3.1, PAGE 8).

U.S. NUCLEAR REGULATORY COMMISSION
GEOGRAPHIC LOCATIONS



SOURCE: NRC 1/31/89

Exhibit 2

Page 7

RESOURCE PROFILES

STAFFING

- FY 1989 ALLOWANCE 3,169 FTE.
- ABOUT 69% AT HEADQUARTERS, 27% IN REGIONS, AND 5% AT REACTOR SITES.
- ALLOCATION BY MISSION AREA (SEE EXHIBIT 8, PAGE 11).

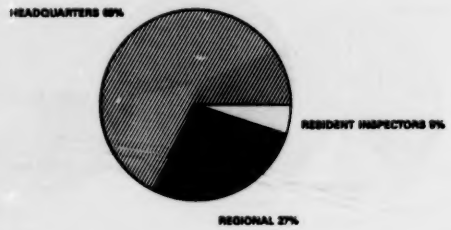
FUNDING

- FY 1989 BUDGET $459 MILLION.
- ABOUT 63% OF NRC BUDGET REQUIRED FOR SALARIES, LOGISTICAL SUPPORT AND TRAVEL (SEE EXHIBIT 4, PAGE 10).
- ALLOCATION BY MISSION AREA (SEE EXHIBIT 8, PAGE 11).
- FY 1989 BUDGET IN 1976 (YEAR NRC EST.) CONSTANT DOLLARS EQUATES TO $288 MILLION (SEE EXHIBIT 6, PAGE 12). THERE WERE 91 REACTORS LICENSED TO OPERATE IN OCTOBER 1976. IN DECEMBER 1988 THERE WERE 111.

LICENSE FEES

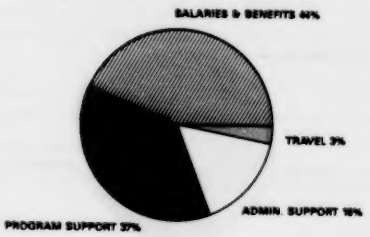
- PUBLIC LAW 100-203 AUTHORIZED NRC TO COLLECT FEES THAT TOTAL AT LEAST 45% OF ITS ANNUAL BUDGET (FY 1988-1989 ONLY).
- NRC's AUTHORITY TO COLLECT FEES WILL REVERT TO THE PERCENT REQUIREMENTS ESTABLISHED BY PUBLIC LAW 99-272 AND WILL BE CAPPED AT NOT MORE THAN 33% OF ITS ANNUAL BUDGET AFTER FY 1989.

NRC FY 1989 STAFF RESOURCES BY LOCATION



SOURCE: NRC 1/31/89 Exhibit 3 Page 5

NRC FY 1989 STAFF RESOURCES BY FUNCTION

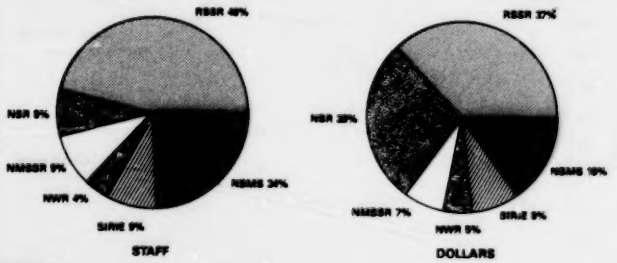


SOURCE: NRC 1/31/89

Exhibit 4

Page 10

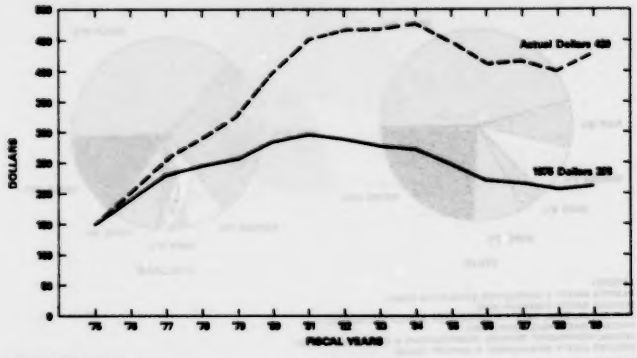
NRC FY 1989 RESOURCES BY MISSION AREA



LEGEND
REACTOR SAFETY & SAFEGUARDS REGULATION (RSSR)
NUCLEAR SAFETY RESEARCH (NSR)
NUCLEAR MATERIAL SAFETY & SAFEGUARDS REGULATION (NMSSR)
NUCLEAR WASTE REGULATION (NWR)
SPECIAL/REIMBURSEMENT REVIEWS, INVESTIGATIONS & ENFORCEMENT (SIRE)
NUCLEAR SAFETY MANAGEMENT & SUPPORT (NSMS)

SOURCE: NRC 1/31/89

U.S. NUCLEAR REGULATORY COMMISSION
TOTAL OBLIGATIONS IN CONSTANT DOLLARS
(DOLLARS IN MILLIONS)



SOURCE: NRC 1/21/88 Exhibit 5 Page 12

NUCLEAR POWER REACTORS

OPERATING AND UNDER CONSTRUCTION (SEE EXHIBITS 7.1-7.6 PAGES 16-20)

- 111 LICENSED TO OPERATE.
- 5 SCHEDULED FOR COMPLETION BY 1986.
- 7 PARTIALLY COMPLETED BUT CONSTRUCTION DEFERRED.

REACTOR DIVERSITY

- ALTHOUGH THERE ARE MANY SIMILARITIES, EACH REACTOR DESIGN CAN BE CONSIDERED UNIQUE
  - 4 REACTOR VENDORS.
  - 54 LICENSEES.
  - 81 DIFFERENT DESIGNS.
  - 76 SITES.
  - 34 STATES.

ABOUT 5,400 LICENSED RACTOR OPERATORS

- EACH OPERATOR IS LICENSED FOR A SPECIFIC REACTOR.
- EACH OPERATOR IS REQUALIFIED PRIOR TO RENEWAL OF A SIX-YEAR LICENSE.

NRC CONDUCTS THE PRINCIPAL U.S. GOVERNMENT PROGRAM ON LIGHT WATER REACTOR SAFETY RESEARCH.

NRC CONDUCTS AROUND 3,000 POWER REACTOR INSPECTIONS ANNUALLY.

ABOUT 20 SEPARATE LICENSE CHANGES ARE REQUESTED PER POWER REACTOR EACH YEAR—RESULTS IN MORE THAN 2,000 SEPARATE NRC REVIEWS PER YEAR.

ABOUT 5,000 REACTOR EVENT REPORTS ASSESSED BY NRC ANNUALLY.

U.S. COMMERCIAL NUCLEAR POWER REACTOR SITES

NOTE: There are no [illegible] reactors in Alaska or Hawaii

LEGEND
- ▲ LICENSED TO OPERATE (111)
- ■ SCHEDULED FOR COMPLETION BY 1988 (8)
- ● DEFERRED CONSTRUCTION (7)

SOURCE: NRC 1/31/88

NRC REGION I
COMMERCIAL NUCLEAR POWER REACTOR SITES

CONNECTICUT
- ▲ HADDAM NECK
- ▲ MILLSTONE 1, 2, and 3

MAINE
- ▲ MAINE YANKEE

MARYLAND
- ▲ CALVERT CLIFFS 1 and 2

MASSACHUSETTS
- ▲ PILGRIM 1
- ▲ YANKEE ROWE

NEW HAMPSHIRE
- ▲ SEABROOK 1 (Zero Power)

NEW JERSEY
- ▲ HOPE CREEK 1
- ▲ OYSTER CREEK 1
- ▲ SALEM 1 and 2

NEW YORK
- ▲ FITZPATRICK
- ▲ GINNA
- ▲ INDIAN POINT 2 and 3
- ▲ NINE MILE POINT 1 and 2
- ▲ SHOREHAM (Low Power License)

PENNSYLVANIA
- ▲ BEAVER VALLEY 1 and 2
- ▲ LIMERICK 1
- ■ LIMERICK 2
- ▲ PEACH BOTTOM 2 and 3
- ▲ SUSQUEHANNA 1 and 2
- ▲ THREE MILE ISLAND 1

VERMONT
- ▲ VERMONT YANKEE

LEGEND
- ▲ LICENSED TO OPERATE (28)
- ■ SCHEDULED FOR COMPLETION (1)

SOURCE: NRC 1/31/89

Exhibit 7.2

NRC REGION II
COMMERCIAL NUCLEAR POWER REACTOR SITES

ALABAMA
- ▲ BROWNS FERRY 1, 2, and 3
- ▲ JOSEPH M. FARLEY 1 and 2
- ● BELLEFONTE 1 and 2

FLORIDA
- ▲ CRYSTAL RIVER 3
- ▲ ST. LUCIE 1 and 2
- ▲ TURKEY POINT 3 and 4

GEORGIA
- ▲ HATCH 1 and 2
- ▲ VOGTLE 1
- ■ VOGTLE 2

MISSISSIPPI
- ▲ GRAND GULF 1
- ● GRAND GULF 2

NORTH CAROLINA
- ▲ BRUNSWICK 1 and 2
- ▲ McGUIRE 1 and 2
- ▲ SHEARON HARRIS 1

SOUTH CAROLINA
- ▲ CATAWBA 1 and 2
- ▲ OCONEE 1, 2, and 3
- ▲ ROBINSON 2
- ▲ SUMMER 1

TENNESSEE
- ▲ SEQUOYAH 1 and 2
- ■ WATTS BAR 1 and 2

VIRGINIA
- ▲ NORTH ANNA 1 and 2
- ▲ SURRY 1 and 2

LEGEND
- ▲ LICENSED TO OPERATE (13)
- ■ SCHEDULED FOR COMPLETION (3)
- ● DEFERRED CONSTRUCTION (3)

SOURCE: NRC 1/31/89

Exhibit 7.3

NRC REGION III
COMMERCIAL NUCLEAR POWER REACTOR SITES

ILLINOIS
- ▲ BRAIDWOOD 1 and 2
- ▲ BYRON 1 and 2
- ▲ CLINTON 1
- ▲ DRESDEN 2 and 3
- ▲ LASALLE 1 and 2
- ▲ QUAD CITIES 1 and 2
- ▲ ZION 1 and 2

IOWA
- ▲ DUANE ARNOLD 1

MICHIGAN
- ▲ BIG ROCK POINT
- ▲ COOK 1 and 2
- ▲ FERMI 2
- ▲ PALISADES

MINNESOTA
- ▲ MONTICELLO
- ▲ PRAIRIE ISLAND 1 and 2

MISSOURI
- ▲ CALLAWAY 1

OHIO
- ▲ DAVIS-BESSE 1
- ▲ PERRY 1
- ● PERRY 2

WISCONSIN
- ▲ KEWAUNEE
- ▲ POINT BEACH 1 and 2

LEGEND
- ▲ LICENSED TO OPERATE (28)
- ● DEFERRED CONSTRUCTION (1)

SOURCE: NRC 1/31/89

Exhibit 7.4

NRC REGION IV
COMMERCIAL NUCLEAR POWER REACTOR SITES

ARKANSAS
▲ ARKANSAS 1 and 2
COLORADO
▲ FORT ST. VRAIN
KANSAS
▲ WOLF CREEK
LOUISIANA
▲ RIVER BEND 1
▲ WATERFORD 3
NEBRASKA
▲ COOPER STATION
▲ FORT CALHOUN 1
TEXAS
■ COMANCHE PEAK 1
● COMANCHE PEAK 2
▲ SOUTH TEXAS 1
▲ SOUTH TEXAS 2 (Low Power License)

LEGEND
▲ LICENSED TO OPERATE (18)
■ SCHEDULED FOR COMPLETION (1)
● DEFERRED CONSTRUCTION (1)

SOURCE: NRC 1/31/89

NRC REGION V
COMMERCIAL NUCLEAR POWER REACTOR SITES

ARIZONA
▲ PALO VERDE 1, 2, and 3
CALIFORNIA
▲ DIABLO CANYON 1 and 2
▲ RANCHO SECO 1
▲ SAN ONOFRE 1, 2, and 3
OREGON
▲ TROJAN 1
WASHINGTON
▲ WPPSS 2
⊖ WPPSS 1
● WPPSS 3

NOTE: There are no commercial reactors in Alaska or Hawaii

LEGEND
▲ LICENSED TO OPERATE (11)
● DEFERRED CONSTRUCTION (2)

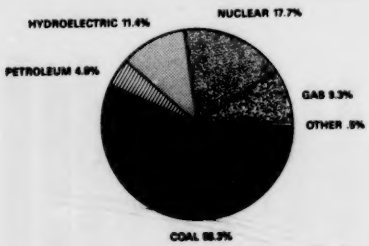
SOURCE: NRC 1/31/89

NUCLEAR POWER REACTORS

111 LICENSED TO OPERATE

- GENERATE ABOUT 19% OF NATION'S ELECTRICITY (SEE EXHIBITS 8.1-8.2, PAGES 23-24).
- REPLACEMENT ENERGY COSTS WOULD EXCEED $16 BILLION ANNUALLY.
- AVERAGE REACTOR CAPACITY FACTOR IN 1988 ABOUT 68% (SEE EXHIBIT 8.3, PAGE 25).
- ABOUT 20% OF WORLD'S NUCLEAR ELECTRICITY PRODUCED IN THE U.S. (SEE EXHIBITS 8.1-8.3, PAGES 26-28).

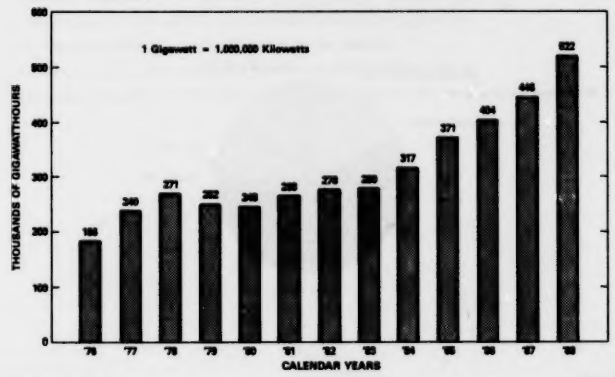
1987 U.S. ELECTRIC NET GENERATION BY ENERGY SOURCE



SOURCE: Elec. Power Monthly 5/88

Exhibit 8.1

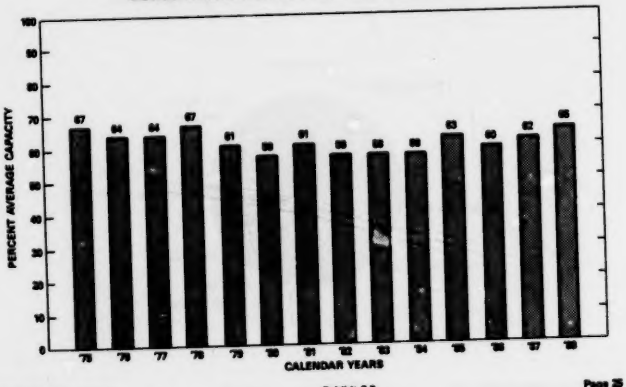
U.S. ELECTRIC NET GENERATION
BY NUCLEAR REACTORS IN COMMERCIAL OPERATION



SOURCE: NRC 1/31/89

Exhibit 8.2

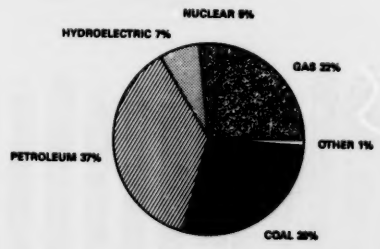
AVERAGE ANNUAL U.S. REACTOR CAPACITY FACTOR USING MAXIMUM DEPENDABLE CAPACITY



SOURCE: NRC 1/31/88

Exhibit 8.3

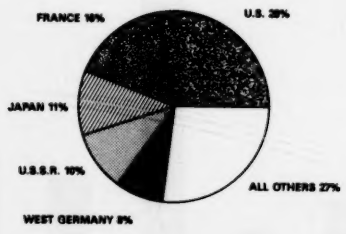
1987 WORLD ENERGY PRODUCTION BY POWER SOURCE



SOURCE: DOE/EIA-0219(87) 1/89

Exhibit 9.1

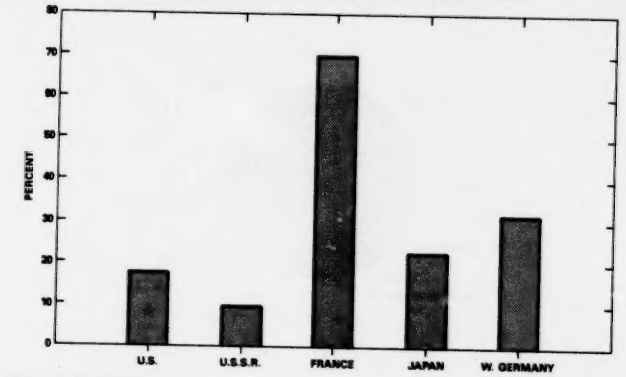
1987 WORLD NUCLEAR ELECTRIC POWER PRODUCTION BY REACTORS IN COMMERCIAL OPERATION



SOURCE: DOE/EIA-0219(87) 1/89

Exhibit 9.2

1987 NUCLEAR ELECTRIC POWER
AS PERCENT OF TOTAL ELECTRICITY PRODUCTION



SOURCE: DOE/EIA-0219(87)

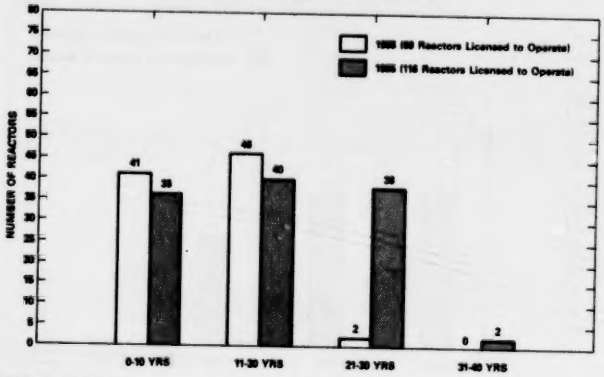
Exhibit 9.3

NUCLEAR POWER REACTORS

U.S. NUCLEAR POWER PLANTS GROWING OLDER (SEE EXHIBITS 10.1-10.2, PAGES 31-32)

- IN 1985 ABOUT 2% WERE MORE THAN 20 YEARS OLD. (PRODUCING ABOUT 1% OF THE NUCLEAR ELECTRICITY.)
- IN 1995 NEARLY 39% WILL BE MORE THAN 20 YEARS OLD. (PRODUCING ABOUT 27% OF THE NUCLEAR ELECTRICITY.)
- MUST ENSURE THAT CRITICAL REACTOR COMPONENTS AND SAFETY SYSTEMS WILL PROVIDE ADEQUATE RELIABILITY AS PLANTS AGE.

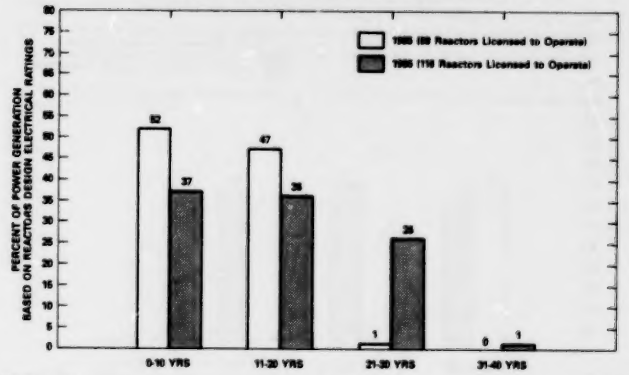
U.S. COMMERCIAL POWER REACTORS DISPLAYED BY AGE & POPULATION



SOURCE: NRC 1/31/89

Exhibit 10.1

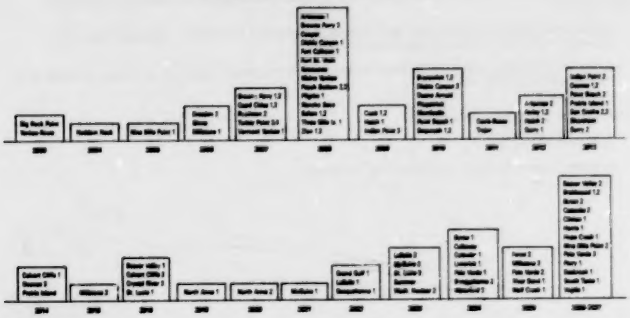
U.S. COMMERCIAL POWER REACTORS
DISPLAYED BY AGE & ELECTRIC GENERATION



SOURCE: NRC 1/31/96

Exhibit 10.2

U.S. COMMERCIAL POWER REACTORS BY LICENSE EXPIRATION DATE



NOTE:

SOURCE: NRC 1/31/89

NONPOWER NUCLEAR REACTORS

NONPOWER NUCLEAR REACTORS ARE DESIGNED AND UTILIZED FOR REBEARCH, TESTING AND EDUCATION PURPOSES, I.E.

- IN THE PERFORMANCE OF RESEARCH AND TESTING IN THE AREAS OF PHYSICS, CHEMISTRY, BIOLOGY, MEDICINE, MATERIALS SCIENCES AND RELATED FIELDS.
- IN EDUCATING PEOPLE FOR NUCLEAR RELATED CAREERS IN THE POWER INDUSTRY, NATIONAL DEFENSE, AND REBEARCH AND EDUCATION.

OPERATING AND UNDER CONSTRUCTION

- 81 LICENSED TO OPERATE.
- 1 UNDER CONSTRUCTION AT THE UNIVERSITY OF TEXAS.

NONPOWER NUCLEAR REACTOR SITES

NOTE: There are no nonpower nuclear reactors in Alaska or Hawaii

LEGEND
▲ LICENSED TO OPERATE (81)
■ UNDER CONSTRUCTION (1)

SOURCE: NRC 1/31/89

FUTURE REACTOR DESIGNS

STANDARDIZATION OF FUTURE NUCLEAR POWER PLANT DESIGNS IS AN IMPORTANT COMMISSION INITIATIVE THAT CAN SIGNIFICANTLY ENHANCE SAFETY AND RELIABILITY OF NUCLEAR POWER PLANTS

- NRC CONDUCTING DESIGN CERTIFICATION REVIEWS FOR ADVANCED DESIGNS FROM GENERAL ELECTRIC AND COMBUSTION ENGINEERING AND A PRELIMINARY DESIGN APPROVAL FOR WESTINGHOUSE.
- NRC REVIEWING THE ELECTRIC POWER RESEARCH INSTITUTE'S ADVANCED LIGHT WATER REACTOR REQUIREMENTS DOCUMENT.
- NRC CONDUCTING INITIAL LICENSABILITY REVIEW OF THREE DOE ADVANCED REACTOR CONCEPTS (TWO LIQUID METAL REACTORS AND ONE MODULAR HIGH TEMPERATURE GAS REACTOR).

NUCLEAR MATERIAL SAFETY

FUEL CYCLE

- NRC LICENSES AND INSPECTS ALL CIVILIAN NUCLEAR FUEL FACILITIES INVOLVED IN THE PROCESSING AND FABRICATION OF URANIUM ORE INTO REACTOR FUEL.
- 12 MAJOR FACILITIES LICENSED TO OPERATE.

MAJOR FUEL CYCLE FACILITIES IN THE UNITED STATES

NOTE: There are no fuel cycle facilities in Alaska or Hawaii

URANIUM HEXAFLUORIDE PRODUCTION FACILITIES

- ALLIED CORPORATION METROPOLIS, IL
- SEQUOYAH FUELS CORP. SEQUOYAH, OK

URANIUM FUEL FABRICATION FACILITIES

- GA TECHNOLOGIES SAN DIEGO, CA
- COMBUSTION ENGINEERING WINDSOR, CT
- UNITED NUCLEAR CORP. UNCASVILLE, CT
- COMBUSTION ENGINEERING HEMATITE, MO
- GENERAL ELECTRIC WILMINGTON, NC
- WESTINGHOUSE COLUMBIA, SC
- NUCLEAR FUEL SERVICES ERWIN, TN
- BABCOCK & WILCOX (COMM'L) LYNCHBURG, VA
- BABCOCK & WILCOX (NAVAL) LYNCHBURG, VA
- ADVANCED NUCLEAR FUELS RICHLAND, WA

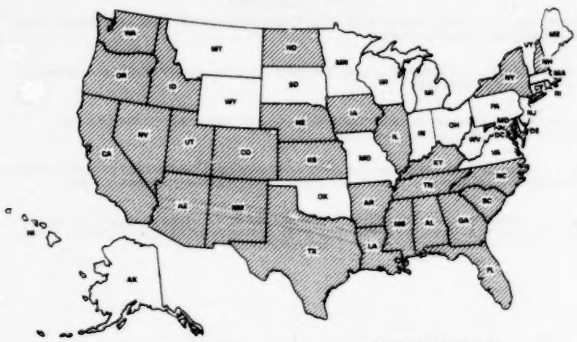
SOURCE: NRC 1/31/89

NUCLEAR MATERIAL SAFETY

MATERIAL LICENSEES

- ABOUT 23,000 LICENSED MEDICAL, ACADEMIC, AND INDUSTRIAL USERS OF NUCLEAR MATERIAL
  - 8,000 LICENSES ISSUED BY NRC.
  - 15,000 LICENSES ISSUED BY THE 29 STATES THAT PARTICIPATE IN THE NRC AGREEMENT STATES PROGRAM.
- MEDICAL: OVER 7 MILLION CLINICAL PROCEDURES USING RADIOACTIVE MATERIAL PERFORMED ANNUALLY
  - ABOUT 7 MILLION FOR DIAGNOSIS.
  - ABOUT 200 THOUSAND FOR TREATMENT OF PATIENTS.
- ACADEMIC: USED IN UNIVERSITIES, COLLEGES, AND OTHER ACADEMIC INSTITUTIONS IN COURSE WORK AND RESEARCH.
- INDUSTRIAL: USED IN SUCH AREAS AS RADIOGRAPHY, GAUGING DEVICES, GAS CHROMOTOGRAPHY, WELL LOGGING, AND SMOKE DETECTORS.
- NRC RECEIVES FOR REVIEW NEARLY 5,200 NEW, RENEWAL, OR LICENSE AMENDMENTS FOR MATERIAL LICENSES ANNUALLY.
- NRC CONDUCTS ABOUT 2,800 HEALTH AND SAFETY INSPECTIONS OF NUCLEAR MATERIAL LICENSEES ANNUALLY.

AGREEMENT STATES



☑ AGREEMENT STATES (29)
A STATE THAT HAS SIGNED AN AGREEMENT WITH THE NRC, ALLOWING THE STATE TO REGULATE THE USE OF RADIOACTIVE MATERIAL WITHIN THAT STATE

SOURCE: NRC 1/31/88

Exhibit 13

NUCLEAR MATERIAL TRANSPORTATION AND SAFEGUARDS

NRC REVIEWS, EVALUATES, AND CERTIFIES ABOUT 90 CONTAINER-DESIGN APPLICATIONS FOR TRANSPORT AND SHIPMENT OF NUCLEAR MATERIAL ANNUALLY.

NRC REVIEWS AND EVALUATES ABOUT 140 LICENSE APPLICATIONS FOR THE EXPORT OF NUCLEAR MATERIAL FROM THE UNITED STATES ANNUALLY.

NRC CONDUCTS TRANSPORT-RELATED SAFETY INSPECTIONS, QUALITY ASSURANCE INSPECTIONS, AND SAFEGUARDS INSPECTIONS OF NUCLEAR MATERIAL.

NRC AND DOE CONTINUE JOINT OPERATION OF A NATIONAL DATABASE AND INFORMATION SUPPORT SYSTEM TO TRACK MOVEMENT OF DOMESTIC AND FOREIGN NUCLEAR MATERIAL UNDER SAFEGUARDS CONTROL.

NRC INSTITUTES NEWLY DEVELOPED TECHNIQUES TO EVALUATE SECURITY SYSTEMS THROUGH TACTICAL RESPONSE EXERCISES TO EVALUATE THE OPERATIONAL EFFECTIVENESS OF LICENSEES WHO POSSESS SIGNIFICANT QUANTITIES OF STRATEGIC SPECIAL NUCLEAR MATERIAL.

HIGH LEVEL NUCLEAR WASTE DISPOSAL

ABOUT 18,000 METRIC TONS OF NUCLEAR SPENT FUEL CURRENTLY STORED IN POOLS AT OPERATING NUCLEAR POWER PLANTS (SEE EXHIBITS 14.1-14.2, PAGES 46-48).

372,000 CUBIC METERS OF HIGH LEVEL WASTE FROM DOE ACTIVITIES CURRENTLY STORED AT HANFORD, SAVANNAH RIVER, AND IDAHO DOE SITES.

TWO OFF-SITE (I.E., NOT AT THE REACTOR SITE) SPENT FUEL STORAGE FACILITIES BUT NO LONGER ACCEPTING SPENT FUEL FOR STORAGE.

- WEST VALLEY, NEW YORK
- MORRIS, ILLINOIS

NUCLEAR WASTE POLICY ACT OF 1982 AND NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1987 GIVE THE NRC REGULATORY RESPONSIBILITY FOR HIGH LEVEL WASTE DISPOSAL AND FOR LICENSING A DEEP GEOLOGICAL REPOSITORY WHICH DOE PLANS TO HAVE IN OPERATION BY 2003.

NWPAA OF 1987 NAMED YUCCA MOUNTAIN, NV, AS THE PRIME CANDIDATE SITE FOR THE HIGH LEVEL WASTE REPOSITORY AND LINKED CONSTRUCTION OF A MONITORED RETRIEVABLE STORAGE FACILITY TO NRC'S AUTHORIZING CONSTRUCTION OF A RESPOSITORY

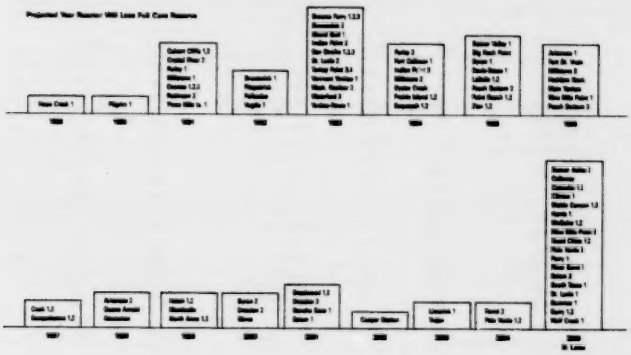
SPENT FUEL STORED AT NUCLEAR POWER PLANTS
TOTAL METRIC TONS BY STATE

STATE	1988	1998*	STATE	1988	1998*
Alabama	983	1828	Mississippi	49	340
Arizona	0	594	Missouri	39	351
Arkansas	339	637	Nebraska	242	510
California	351	1394	New Hampshire	0	177
Colorado	0	11	New Jersey	486	1389
Connecticut	719	1416	New York	1042	2203
Florida	705	1685	N. Carolina	621	1548
Georgia	342	1209	Ohio	93	469
Illinois	2182	4876	Oregon	174	376
Iowa	139	382	Pennsylvania	984	2829
Kansas	34	234	S. Carolina	880	2162
Louisiana	39	471	Tennessee	189	802
Maine	330	488	Texas	0	888
Maryland	402	720	Vermont	346	391
Massachusetts	330	939	Virginia	649	1304
Michigan	673	1430	Washington	24	276
Minnesota	380	747	Wisconsin	514	879
*Projected Based On 117 Reactors			Total	14,143	34,729

SOURCE: DOE/RL87-11

Exhibit 14.1

PROJECTED SPENT FUEL STORAGE CAPABILITY OF REACTORS LICENSED TO OPERATE



SOURCE: NRC 1/31/89

Exhibit 14.2

LOW LEVEL NUCLEAR WASTE DISPOSAL

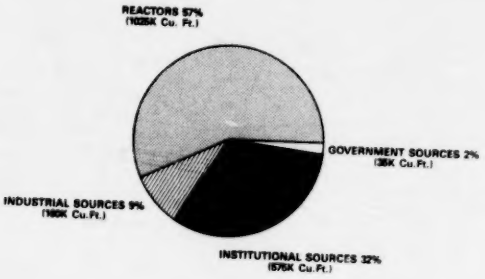
1.8 MILLION CUBIC FEET OF LOW LEVEL RADIOACTIVE WASTE GENERATED IN 1987.

- 3 ACTIVE LICENSED SITES (SEE EXHIBIT 16, PAGE 60).
  - BARNWELL, SOUTH CAROLINA.
  - BEATTY, NEVADA.
  - HANFORD, WASHINGTON.

LOW LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT OF 1985 AUTHORIZED

- FORMATION OF REGIONAL COMPACTS: 9 COMPACTS NOW ACTIVE (SEE EXHIBIT 17, AGE 61).
- EXCLUSION OF WASTE GENERATED OUTSIDE A COMPACT.
- EACH COMPACT TO DESIGNATE 1 ACTIVE SITE.
- SYSTEM OF MILESTONES, INCENTIVES, AND PENALTIES TO ENSURE THAT STATES AND COMPACTS WILL BE RESPONSIBLE FOR THEIR OWN WASTE IN 1993.

LOW LEVEL RADIOACTIVE WASTE BY SOURCE
1.8M CU. FT. GENERATED ANNUALLY IN THE U.S.



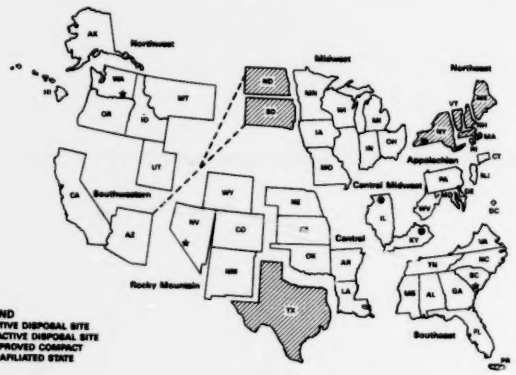
SOURCE: NRC 12/31/88

COMMERCIAL LOW LEVEL WASTE DISPOSAL SITES

SOURCE: NRC 1/31/89

Exhibit 16

REGIONAL LOW LEVEL WASTE COMPACTS



LEGEND
- ★ ACTIVE DISPOSAL SITE
- ● INACTIVE DISPOSAL SITE
- ☐ APPROVED COMPACT
- ☑ UNAFFILIATED STATE

SOURCE: NRC 1/31/89

Exhibit 17

PART II: NRC LICENSEE AND FOREIGN POWER REACTOR DATA

U.S. COMMERCIAL NUCLEAR POWER REACTORS

ABBREVIATIONS USED IN THIS SECTION			
AE:	Architect-Engineer	DPR:	Demonstration Power Reactor
AEP:	American Electric Power	DUKE:	Duke Power
B&R	Burns and Roe	EBSO:	Ebasco
B&W:	Babcock & Wilcox	EXP. DATE:	Expiration Date of OL
BALD:	Baldwin Associates	FLUR:	Fluor Pioneer
BECH:	Bechtel	G&H:	Gibbs and Hill
BRRT:	Brown and Root	GAC:	General Atomic
BWR:	Boiling Water Reactor	GE:	General Electric
COMB:	Combustion Engineering	GHDR:	Gibbs & Hill & Durham & Richardson
COMM. OP.:	Date of Commercial Operation	GIL:	Gilbert Associates
CONST:	Constructor	GPO:	Georgia Power
CONTYPE	Containment Type	HTGR:	High Temperature Gas-Cooled Reactor
DRYAMB	Dry, Ambient Pressure	JONES:	J. A. Jones
DRYSUB	Dry, Subatmospheric	KAIS:	Kaiser Engineers
GASCLD	Gas Cooled	LIC. TYPE:	License Type
ICECND	Wet, Ice Condenser	CP:	Construction Permit
MARK 1	Wet, Mark I	OL-FL:	Operating License - Fuel Load
MARK 2	Wet, Mark II	OL-FP:	Operating License - Full Power
MARK 3	Wet, Mark III	OL-LP:	Operating License - Low Power
CP ISSUED:	Date of Construction Permit Issuance	OL-P:	Provisional Operating License
CPPR:	Construction Permit Power Reactor	MDC:	Maximum Dependable Capacity - Net
CWE:	Commonwealth Edison	MWE:	Megawatts Electrical
DANI:	Daniel International	MWT:	Megawatts Thermal
DBDB:	Duke and Bechtel	NIAG:	Niagara Mohawk
DER:	Design Electric Rating	NPF:	Nuclear Power Facility

U.S. COMMERCIAL NUCLEAR POWER REACTORS

ABBREVIATIONS USED IN THIS SECTION

NSP:	Northern States	TVA:	Tennessee Valley Authority
NSSS:	Nuclear Steam System Supplier & Design Type	UEC:	United Engineering
1:	GE Type 1	WDCO:	Westinghouse Development
2:	GE Type 2	WEST:	Westinghouse Electric
3:	GE Type 3		
4:	GE Type 4		
5:	GE Type 5		
6:	GE Type 6		
2LP:	West Two-Loop		
3LP:	West. Three-Loop		
4LP:	West. Four-Loop		
CE:	Combustion Engineering		
CESD:	CE Standard Design		
LLP:	B&W Lowered Loop		
RLP:	B&W Raised Loop		
OL ISSUED:	Date of Most Recent OL		
PG&E:	Pacific Gas and Electric		
PSE:	Pioneer Services and Engineering		
PUBS:	Public Service Electric and Gas		
PWR:	Pressurized Water Reactor		
S&L:	Sargent and Lundy		
S&W:	Stone and Webster		
SBEC:	Southern Services and Bechtel		
SSI:	Southern Services		

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Arkansas 1 Arkansas Power & Light Co. 6 MI WNW of Russellville, AR 050-00313	IV	PWR-DRYAMB B&W LLP BECH BECH	2568	0836 (MDC)	12/06/1968 05/21/1974 12/19/1974 12/06/2008	OL-FP DPR-51	
Arkansas 2 Arkansas Power & Light Co. 6 MI WNW of Russellville, AR 050-00368	IV	PWR-DRYAMB COMB CE BECH BECH	2815	0858 (MDC)	12/06/1972 12/14/1978 04/28/1980 12/06/2012	OL-FP NPF-6	
Beaver Valley 1 Duquesne Light Co. 17 MI W of McCandless, PA 05-00334	I	PWR-DRYSUB WEST 3LP S&W S&W	2652	0810 (MDC)	08/26/1970 07/02/1976 10/01/1976 01/29/2016	OL-FP DPR-66	
Beaver Valley 2 Duquesne Light Co. 17 MI W of McCandless, PA 050-00412	I	PWR-DRYSUB WEST 3LP S&W S&W	2652	0833 (MDC)	05/03/1974 08/14/1987 11/17/1987 05/27/2027	OL-FP NPF-73	
Bellefonte 1 Tennessee Valley Authority 6 MI NE of Scottsboro, AL 050-00438	II	PWR-DRYAMB B&W RLP TVA TVA	0000	1235 (DER)	12/24/1974	CP CPPR-122	Construction Halted
Bellefonte 2 Tennessee Valley Authority 6 MI NE of Scottsboro, AL 050-00439	II	PWR-DRYAMB B&W RLP TVA TVA	0000	1235 (DER)	12/24/1974	CP CPPR-123	Construction Halted

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Big Rock Point Consumers Power Co. 4 MI NE of Charlevoix, MI 050-00155	III	BWR-DRYAMB GE 1 BECH BECH	0240	0069 (MDC)	06/31/1960 08/01/1964 03/29/1963 08/31/2008	OL-FP DPR-6	
Braidwood 1 Commonwealth Edison Co. 36 MI SSW of Joliet, IL 050-00456	III	PWR-DRYAMB WEST 4LP S&L CWE	3411	1120 (MDC)	12/31/1976 07/02/1987 07/29/1988 10/17/2026	OL-FP NPF-72	
Braidwood 2 Commonwealth Edison Co. 36 MI SSW of Joliet, IL 050-00457	III	PWR-DRYAMB WEST 4LP S&L CWE	3411	1120 (MDC)	12/31/1976 08/20/1988 10/17/1988 12/18/2027	OL-FP NPF-77	
Browns Ferry 1 Tennessee Valley Authority 10 MI NW of Decatur, AL 050-00259	II	BWR-MARK1 GE 4 TVA TVA	3293	1065 (MDC)	05/10/1967 12/20/1973 08/01/1974 05/10/2007	OL-FP DPR-33	
Browns Ferry 2 Tennessee Valley Authority 10 MI NW of Decatur, AL 050-00260	II	BWR-MARK1 GE 4 TVA TVA	3293	1065 (MDC)	05/10/1967 08/02/1974 03/01/1976 05/10/2007	OL-FP DPR-52	
Browns Ferry 3 Tennessee Valley Authority 10 MI NW of Decatur, AL 050-00296	II	BWR-MARK1 GE 4 TVA TVA	3293	1065 (MDC)	07/31/1968 08/18/1976 03/01/1977 07/21/2008	OL-FP DPR-68	

SOURCE: NRC (SINET 1/88)

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	UC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Brunswick 1 Carolina Power & Light Co. 2 MI N of Southport, NC 050-00325	II	BWR-MARK1 GE 4 UEC BRRT	2436	0790 (MDC)	02/07/1970 11/12/1976 03/18/1977 02/07/2016	OL-FP DPR-71	
Brunswick 2 Carolina Power & Light Co. 2 MI N of Southport, NC 050-00324	II	BWR-MARK1 GE 4 UEC BRRT	2436	0790 (MDC)	02/07/1970 12/27/1974 11/03/1975 02/08/2010	OL-FP DPR-62	
Byron 1 Commonwealth Edison Co. 17 MI SW of Rockford, IL 050-00454	III	PWR-DRYAMB WEST 4LP SbL CWE	3411	1105 (MDC)	12/31/1975 02/14/1985 09/16/1985 10/31/2024	OL-FP NPF-37	
Byron 2 Commonwealth Edison Co. 17 MI SW of Rockford, IL 050-00455	III	PWR-DRYAMB WEST 4LP SbL CWE	3411	1105 (MDC)	12/31/1975 01/30/1987 08/21/1987 11/06/2026	OL-FP NPF-66	
Callaway Union Electric Co. 10 MI SE of Fulton, MO 050-00483	III	PWR-DRYAMB WEST 4LP BECH DANI	3565	1145 (MDC)	04/16/1976 10/18/1984 12/19/1984 10/18/2024	OL-FP NPF-30	
Calvert Cliffs 1 Baltimore Gas & Electric 40MI S of Annapolis, MD 050-00317	I	PWR-DRYAMB COMB CE BECH BECH	2700	0825 (MDC)	07/07/1969 07/31/1974 05/08/1975 07/31/2014	OL-FP DPR-53	

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Calvert Cliffs 2 Baltimore Gas & Electric CO. 40 MI S of Annapolis, MD 050-00318	I	PWR-DRYAMB COMB CE BECH BECH	2700	0825 (MDC)	07/07/1969 11/30/1976 04/01/1977 08/31/2016	OL-FP DPR-69	
Catawba 1 Duke Power Co. 6 MI NNW of Rock Hill, SC 050-00413	II	PWR-ICECND WEST 4LP DUKE DUKE	3411	1129 (MDC)	08/07/1975 01/17/1985 06/29/1985 12/06/2024	OL-FP NPF-35	
Catawba 2 Duke Power Co. 6 MI NNW of Rock Hill, SC 050-00414	II	PWR-ICECND WEST 4LP DUKE DUKE	3411	1129 (MDC)	08/07/1975 05/15/1986 08/19/1986 02/24/2026	OL-FP NPF-52	
Clinton Illinois Power Co. 6 MI E of Clinton, IL 050-00461	III	BWR-MARK3 GE S S&H BALD	2894	0930 (MDC)	02/24/1976 04/17/1987 11/24/1987 09/29/2026	OL-FP NPF-62	
Comanche Peak 1 Texas Utilities Electric Co. 4 MI N of Glen Rose, TX 050-00445	IV	PWR-DRYAMB WEST 4LP G&H BRRT	0000	1150 (DER)	12/19/1974	CP CPPR-126	Under Active Construction
Comanche Peak 2 Texas Utilities Electric Co. 4 MI N of Glen Rose, TX 050-00446	IV	PWR-DRYAMB WEST 4LP G&H BRRT	0000	1150 (DER)	12/19/1974	CP CPPR-127	Construction Deferred

SOURCE: NRC (SINET 1/89)

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Cook 1 Indiana & Michigan Electric Co. 11 MI S of Benton Harbor, MI 050-00315	III	PWR-ICECND WEST 4LP AEP AEP	3250	1020 (MDC)	03/25/1969 10/25/1974 08/29/1975 08/29/2008	OL-FP DPR-58	
Cook 2 Indiana & Michigan Power Co. 11 MI S of Benton Harbor, MI 050-00316	III	PWR-ICECND WEST 4LP AEP	3411	1060 (MDC)	03/25/1969 12/23/1977 07/01/1978	OL-FP DPR-74	
Cooper Nebraska Public Power District 23 MI S of Nebraska City, NE 050-00298	IV	BWR-MARK1 GE 4 S&R S&R	2381	0784 (MDC)	05/04/1968 01/18/1974 07/01/1974 08/04/2008	OL-FP DPR-46	
Crystal River 3 Florida Power Corporation 7 MI NW of Crystal River, FL 050-00302	II	PWR-DRYAMB B&W LLP GIL JONES	2544	0821 (MDC)	09/25/1968 01/28/1977 09/13/1977 12/03/2016	OL-FP DPR-72	
Davis-Besse Toledo Edison Co. 21 MI ESE of Toledo, OH 050-00346	III	PWR-DRYAMB B&W LLP BECH BECH	2772	0906 (MDC)	03/24/1971 04/22/1977 07/31/1978 03/24/2011	OL-FP NPF-3	
Diablo Canyon 1 Pacific Gas & Electric Co. 12 MI W&W of San Luis Obispo, CA 050-00275	V	PWR-DRYAMB WEST 4LP PG&E PG&E	3338	1073 (MDC)	04/23/1968 11/02/1984 05/07/1985 04/23/2008	OL-FP DPR-80	

SOURCE: NRC (SINET 1/88)

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	UC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Diablo Canyon 2 Pacific Gas & Electric Co. 12 MI WSW of San Luis Obispo 050-00323	V	PWR-DRYAMB WEST 4LP PG&E	3411	1087 (MDC)	12/09/1970 08/26/1985 03/13/1986 12/09/2010	OL-FP DPR-82	
Dresden 2 Commonwealth Edison Co. 9 MI E of Morris, IL 050-00237	III	BWR-MARK1 GE 3 SBL UEC	2527	0772 (MDC)	01/10/1966 12/22/1969 06/09/1970 12/72/2012	OL-P DPR-19	Licenses Not Expired Under 10 CFR 2.109
Dresden 3 Commonwealth Edison CO. 9 MI E of Morris, IL 050-00249	III	BWR-MARK1 GE 4 SBL UEC	2527	0773 (MDC)	10/14/1966 03/02/1971 11/16/1971 10/14/2008	OL-FP DPR-25	
Duane Arnold Iowa Electric Light & Power Co. 8 MI NW of Cedar Rapids, IA 050-00331	III	BWR-MARK1 GE 4 BECH BECH	1658	0615 (MDC)	06/22/1970 02/22/1974 02/01/1975 08/21/2010	OL-FP DPR-49	
Farley 1 Alabama Power Co. 16 MI SE of Dothan, AL 050-00348	II	PWR-DRYAMB WEST 3LP SSI DANI	2652	0813 (MDC)	08/16/1972 06/25/1977 12/01/1977 06/16/2012	OL-FP NPF-2	
Farley 2 Alabama Power Co. 16 MI SE of Dothan, AL 050-00364	II	PWR-DRYAMB WEST 3LP SSI BECH	2652	0823 (MDC)	08/16/1972 03/31/1981 07/30/1981 06/16/2012	OL-FP NPF-8	

U.S. COMMERCIAL NUCLEAR POWER REACTORS

UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Fermi 2 Detroit Edison Co. 25 MI NE of Toledo, OH 050-00341	III	BWR-MARK1 GE 4 SbL DANI	3292	1093 (MDC)	09/26/1972 07/15/1985 01/23/1988 03/20/2025	OL-FP NPF-43	
Fitzpatrick New York Power Authority 8 MI NE of Oswego, NY 050-00333	I	BWR-MARK1 GE 4 S&W S&W	2436	0778 (MDC)	05/20/1970 10/17/1974 07/28/1976 05/20/2010	OL-FP DPR-59	
Fort Calhoun 1 Omaha Public Power District 19 MI N of Omaha, NE 050-00285	IV	PWR-DRYAMB COMB CE GHDR GHDR	1500	0478 (MDC)	08/07/1968 08/09/1973 08/20/1974 08/01/2008	OL-FP DPR-40	
Fort St. Vrain Public Service Co. of Colorado 35 MI N of Denver, CO 050-00267	IV	HTGR-GASCLD GAC SbL EBSO	0842	0330 (MDC)	09/17/1968 12/21/1979 07/01/1979 09/17/2008	OL-FP DPR-34	
Ginna Rochester Gas & Electric Co. 20 MI NE of Rochester, NY 050-00244	I	PWR-DRYAMB WEST 2LP GIL BECH	1520	0470 (MDC)	04/25/1968 12/10/1984 07/01/1970 04/25/2008	OL-FP DPR-18	
Grand Gulf 1 System Energy Resources, Inc. 25 MI S of Vicksburg, MS 050-00416	II	BWR-MARK3 GE 6 BECH BECH	3833	1142 (MDC)	09/04/1974 11/01/1984 07/01/1985 06/16/2022	OL-FP NPF-29	

SOURCE: NRC (SINET 1/89)

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Grand Gulf 2 System Energy Resources, Inc. 25 MI S of Vicksburg, MS 050-00417	II	BWR-MARK3 GE 6 SECH SECH	0000	1250 (DER)	09/04/1974	CP CPPR-119	Construction Halted
Haddam Neck Connecticut Yankee Atomic Power 13 MI E of Meriden, CT 050-00213	I	PWR-DRYAMB WEST 4LP S&W S&W	1825	0590 (MDC)	05/28/1964 12/27/1974 01/01/1988 05/28/2004	OL-FP DPR-61	
Harris 1 Carolina Power & Light Co. 20 MI SW of Raleigh, NC 050-00400	II	PWR-DRYAMB WEST 3 LP EBSO DANI	2775	0860 (MDC)	01/27/1978 01/12/1987 05/02/1987 10/24/2026	OL-FP NPF-63	
Hatch 1 Georgia Power Co. 11 MI N of Baxley, GA 050-00321	II	BWR-MARK1 GE 4 SECH GPO	2436	0750 (MDC)	09/30/1969 10/13/1974 12/31/1975 08/30/2009	OL-FP DPR-57	
Hatch 2 Georgia Power Co. 11 MI N of Baxley, GA 050-00366	II	BWR-MARK1 GE 4 SECH GPO	2436	0768 (MDC)	12/27/1972 09/13/1978 09/05/1979 12/27/2012	OL-FP NPF-5	
Hope Creek 1 Public Service Electric & Gas 18 MI SE of Wilmington, DE 050-00354	I	BWR-MARK1 GE 4 SECH SECH	3293	1067 (MDC)	11/04/1974 07/25/1986 12/20/1986 04/11/2026	OL-FP NPF-57	

SOURCE: NRC (SINET 1/89)

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Indian Point 2 Consolidated Edison Co. of NY 24 MI N of New York City, NY 050-00247	I	PWR-DRYAMB WEST 4LP UEC WDCO	2758	0949 (MDC)	10/14/1966 08/26/1973 08/01/1974 09/28/2013	OL-FP DPR-26	
Indian Point 3 New York Power Authority 24 MI N of New York City, NY 050-00286	I	PWR-DRYAMB WEST 4LP UEC WDCO	3025	0965 (MDC)	08/13/1969 04/05/1976 08/30/1976 08/13/2009	OL-FP DPR-64	
Kewaunee Wisconsin Public Service Corp. 27 MI E of Green Bay, WI 050-00305	III	PWR-DRYAMB WEST 2LP PSE PSE	1650	0503 (MDC)	08/06/1968 12/21/1973 06/16/1974 08/06/2008	OL-FP DPR-43	
La Salle 1 Commonwealth Edison Co. 11 MI SE of Ottawa, IL 050-00373	III	BWR-MARK2 GE 5 S&L CWE	3323	1036 (MDC)	08/10/1973 08/13/1982 01/01/1984 04/17/2022	OL-FP NPF-11	
La Salle 2 Commonwealth Edison Co. 11 MI SE of Ottawa, IL 050-00374	III	BWR-MARK2 GE 5 S&L CWE	3323	1036 (MDC)	08/10/1973 03/23/1984 10/19/1984 12/16/2023	OL-FP NPF-18	
Limerick 1 Philadelphia Electric Co. 21 MI NW of Philadelphia, PA 050-00352	I	BWR-MARK2 GE 4 BECH BECH	3293	1055 (MDC)	08/19/1974 08/08/1985 02/01/1986 10/26/2024	OL-FP NPF-39	

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Limerick 2 Philadelphia Electric Co. 21 MI NW of Philadelphia, PA 050-00353	I	BWR-MARK2 GE 4 BECH BECH	3600	1065 (DER)	08/19/1974	CP CPPR-107	Under Active Construction
Maine Yankee Maine Yankee Atomic Power Co. 10 MI N of Bath, ME 050-00309	I	PWR-DRYAMB COMB CE S&W S&W	2630	0810 (MDC)	10/21/1968 06/29/1972 12/28/1972 10/21/2008	OL-FP DPR-36	
McGuire 1 Duke Power Co. 17 MI S of Charlotte, NC 050-00369	II	PWR-ICECND WEST 4LP DUKE DUKE	3411	1129 (MDC)	02/23/1973 07/08/1981 12/01/1981 08/12/2021	OL-FP NPF-9	
McGuire 2 Duke Power Co. 17 MI S of Charlotte, NC 050-00370	II	PWR-ICECND WEST 4LP DUKE DUKE	3411	1129 (MDC)	02/23/1973 08/27/1983 03/01/1984 03/03/2023	OL-FP NPF-17	
Millstone 1 Northeast Nuclear Energy Co. 3.2 MI ENE to New London, CT 050-00245 to	I	BWR-MARK1 GE 3 EBSO EBSO	2011	0654 (MDC)	05/19/1965 10/31/1986 03/01/1971 05/15/2005	OL-FP DPR-21	
Millstone 2 Northeast Nuclear Energy Co. 3.2 MI ENE to New London, CT 050-00336 to	I	PWR-DRYAMB COMB CE BECH BECH	2700	0863 (MDC)	12/11/1970 09/30/1975 12/26/1975 07/31/2016	OL-FP DPR-65	

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Millstone 3 Northeast Nuclear Energy Co. 3.2 MI ENE to New London, CT 050-00423 to	I	PWR-DRYSUB WEST 4LP SBW SBW	3411	1142 (MDC)	08/09/1974 01/31/1986 04/23/1986 11/25/2026	OL-FP NPF-49	
Monticello Northern States Power Co. 30 MI NW of Minneapolis, MN 050-00263	III	BWR-MARK1 GE 3 BECH BECH	1670	0536 (MDC)	06/19/1967 01/09/1981 06/30/1971 09/08/2010	OL-FP DPR-22	
Nine Mile Point 1 Niagara Mohawk Power Corp. 6 MI NE of Oswego, NY 050-00220	I	BWR-MARK1 GE 2 NIAG SBW	1850	0610 (MDC)	04/12/1965 12/26/1974 12/01/1969 04/11/2006	OL-FP DPR-63	
Nine Mile Point 2 Niagara Mohawk Power Corp. 6 MI NE of Oswego, NY 050-00410	I	BWR-MARK2 GE 5 SBW SBW	3323	1080 (MDC)	08/24/1974 07/02/1987 04/05/1988 10/31/2026	OL-FP NPF-69	
North Anna 1 Virginia Power Co. 40 MI NW of Richmond, VA 050-00338	II	PWR-DRYSUB WEST 3LP SBW SBW	2893	0915 (MDC)	02/19/1971 04/01/1978 06/06/1978 04/01/2018	OL-FP NPF-4	
North Anna 2 Virginia Power Co. 40 MI NW of Richmond, VA 050-00339	II	PWR-DRYSUB WEST 3LP SBW SBW	2893	0915 (MDC)	02/19/1971 08/21/1980 12/14/1980 08/21/2020	OL-FP NPF-7	

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Oconee 1 Duke Power Co. 30 MI W of Greenville, SC 050-00269	II	PWR-DRYAMB B&W LLP DBDB DUKE	2568	0846 (MDC)	11/06/1967 02/06/1973 07/15/1973 02/06/2013	OL-FP DPR-38	
Oconee 2 Duke Power Co. 30 MI W of Greenville, SC 050-00270	II	PWR-DRYAMB B&W LLP DBDB DUKE	2568	0846 (MDC)	11/06/1967 10/06/1973 09/09/1974 10/06/2013	OL-FP DPR-47	
Oconee 3 Duke Power Co. 30 MI W of Greenville, SC 050-00287	II	PWR-DRYAMB B&W LLP DBDB DUKE	2568	0846 (MDC)	11/06/1967 07/19/1974 12/16/1974 07/19/2014	OL-FP DPR-55	
Oyster Creek GPU Nuclear Corp. 9 MI S of Toms River, NJ 050-00219	I	BWR-MARK1 GE ? B&R B&R	1930	0620 (MDC)	12/15/1964 08/01/1969 12/01/1969 04/09/1972	OL-P DPR-16	License Not Expired Under 10 CFR 2.109
Palisades Consumers Power Co. 5 MI S of South Haven, MI 050-00255	III	PWR-DRYAMB COMB CE SECH SECH	2530	0730 (MDC)	03/14/1967 10/16/1972 12/31/1971 03/01/1974	OL-P DPR-20	License Not Expired Under 10 CFR 2.109
Palo Verde 1 Arizona Public Service Co. 38 MI W of Phoenix, AZ 050-00528	V	PWR-DRYAMB COMB CE80 BECH BCH	3800	1221 (MDC)	05/25/1976 06/01/1985 01/28/1988 12/31/2024	OL-FP NPF-41	

SOURCE: NRC (SINET '89)

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Palo Verde 2 Arizona Public Service Co. 36 MI W of Phoenix, AZ 050-00529	V	PWR-DRYAMB COMB CE80 BECH BECH	3800	1221 (MDC)	05/25/1976 04/24/1986 09/19/1986 12/09/2025	OL-FP NPF-51	
Palo Verde 3 Arizona Public Service Co. 36 MI W of Phoenix, AZ 050-00530	V	PWR-DRYAMB COMB CE80 BECH BECH	3800	1221 (MDC)	05/25/1976 11/25/1987 01/08/1988 09/25/2027	OL-FP NPF-74	
Peach Bottom 2 Philadelphia Electric Co. 17.9 MI S of Lancaster, PA 050-00277	I	BWR-MARK1 GE 4 BECH BECH	3293	1051 (MDC)	01/31/1968 12/14/1973 07/05/1974 01/31/2008	OL-FP DPR-44	
Peach Bottom 3 Philadelphia Electric Co. 17.9 MI S of Lancaster, PA 050-00278	I	BWR-MARK1 GE 4 BECH BECH	3293	1035 (MDC)	01/31/1968 07/02/1974 12/23/1974 01/31/2008	OL-FP DPR-56	
Perry 1 Cleveland Electric Illumination 7 MI NE of Painesville, OH 050-00440	III	BWR-MARK3 GE 6 GIL KAIS	3579	1205 (MDC)	05/03/1977 11/13/1986 11/18/1987 03/18/2026	OL-FP NPF-58	
Perry 2 Cleveland Electric Illumination 7 MI NE of Painesville, OH 050-00441	III	BWR-MARK3 GE 6 GIL KAIS	0000	1205 (DER)	05/03/1977	CP CPPR-149	Construction Halted

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Pilgrim 1 Boston Edison Co. 4 MI SE of Plymouth, MA 050-00293	I	BWR-MARK1 GE 3 BECH BECH	1998	0670 (MDC)	08/26/1968 09/15/1972 12/01/1972 08/26/2008	OL-FP DPR-35	
Point Beach 1 Wisconsin Electric Power Co. 13 MI NNW of Manitowoc, WI 050-00266	III	PWR-DRYAMB WEST 2LP BECH BECH	1518	0485 (MDC)	07/19/1967 10/05/1970 12/21/1970 10/05/2010	OL-FP DPR-24	
Point Beach 2 Wisconsin Electric Power Co. 13 MI NNW of Manitowoc, WI 050-00301	III	PWR-DRYAMB WEST 2LP BECH BECH	1518	0485 (MDC)	07/25/1968 03/08/1973 10/01/1972 03/08/2013	OL-FP DPR-27	
Prairie Island 1 Northern States Power Co. 28 MI SE of Minneapolis, MN 050-00282	III	PWR-DRYAMB WEST 2LP FLUR NSP	1650	0503 (MDC)	06/25/1968 04/05/1974 12/16/1973 08/16/2013	OL-FP DPR-42	
Prairie Island 2 Northern States Power Co. 28 MI SE of Minneapolis, MN 050-00306	III	PWR-DRYAMB WEST 2LP FLUR NSP	1650	0503 (MDC)	06/25/1968 10/29/1974 12/21/1974 10/29/2014	OL-FP DPR-60	
Quad Cities 1 Commonwealth Edison Co. 20 MI NE of Moline, IL 050-00254	III	BWR-MARK1 GE 3 SBL UEC	2511	0789 (MDC)	02/15/1967 12/14/1972 02/18/1973 02/15/2007	OL-FP DPR-29	

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Quad Cities 2 Commonwealth Edison Co. 20 MI NE of Molina, IL 050-00265	III	BWR-MARK1 GE 3 SBL UEC	2511	0789 (MDC)	02/15/1967 12/14/1972 03/10/1973 02/15/2007	OL-FP DPR-30	
Rancho Seco Sacramento Mun. Util. District 25 MI SE of Sacramento, CA 050-00312	V	PWR-DRYAMB B&W LLP BECH BECH	2772	0873 (MDC)	10/11/1968 08/16/1974 04/17/1975 10/11/2008	OL-FP DPR-54	
River Bend 1 Gulf States Utilities Co. 24 MI NNW of Baton Rouge, LA 050-00458	IV	BWR-MARK3 GE 6 SBW SBW	2894	0936 (MDC)	03/25/1977 11/20/1985 08/16/1986 08/29/2025	OL-FP NPF-47	
Robinson 2 Carolina Power & Light Co. 26 MI from Florence, SC 050-00261	II	PWR-DRYAMB WEST 3LP EBSO EBSO	2300	0665 (MDC)	04/13/1967 09/23/1970 03/07/1971 04/13/2007	OL-FP DPR-23	
Salem 1 Public Service Electric & Gas 18 MI S of Wilmington, DE 050-00272	I	PWR-DRYAMB WEST 4LP PUBS UEC	3411	1106 (MDC)	08/25/1968 12/01/1976 08/30/1977 08/25/2008	OL-FP DPR-70	
Salem 2 Public Service Electric & Gas 18 MI S of Wilmington, DE 050-00311	I	PWR-DRYAMB WEST 4LP PUBS UEC	3411	1106 (MDC)	08/25/1968 05/20/1981 10/13/1981 08/25/2008	OL-FP DPR-75	

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San Onofre 1 Southern California Edison Co. 4 MI SE of San Clemente, CA 050-00206	V	PWR-DRYAMB WEST 3LP BECH BECH	1347	0436 (MDC)	03/02/1964 03/27/1967 01/01/1968 09/27/1972	OL-P DPR-13	License Not Expired Under 10 CFR 2.109
San Onofre 2 Southern California Edison Co. 4 MI SE of San Clemente, CA 050-00361	V	PWR-DRYAMB COMB CE BECH BECH	3390	1070 (MDC)	10/18/1973 08/07/1982 08/08/1983 10/18/2013	OL-FP NPF-10	
San Onofre 3 Southern California Edison Co. 4 MI SE of San Clemente, CA 050-00362	V	PWR-DRYAMB COMB CE BECH BECH	3390	1080 (MDC)	10/18/1973 08/16/1983 04/01/1984 10/13/2013	OL-FP NPF-15	
Seabrook 1 Public Service Co. of NH 13 MI S of Portsmouth, NH 050-00443	I	PWR-DRYAMB WEST 4LP UEC UEC	0000	1198 (DER)	07/07/1976 10/17/1988 10/17/2026	OL-FL NPF-86	
Sequoyah 1 Tennessee Valley Authority 9.5 MI NE of Chattanooga, TN 050-00327	II	PWR-ICECND WEST 4LP TVA TVA	3411	1148 (MDC)	05/27/1970 08/17/1980 07/01/1981 05/27/2010	OL-FP DPR-77	
Sequoyah 2 Tennessee Valley Authority 9.5 MI NE of Chattanooga, TN 050-00328	II	PWR-ICECND WEST 4LP TVA TVA	3411	1148 (MDC)	05/27/1970 09/15/1981 08/01/1982 05/27/2010	OL-FP DPR-79	

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Shoreham Long Island Lighting Co. 7.1 MI SSW of Brookhaven, NY (LI) 050-00322	I	BWR-MARK2 GE 4 SWW SWW	0121	0000 (DER)	04/14/1973 07/03/1988 04/13/2013	OL-LP NPF-36	
South Texas 1 Houston Lighting & Power Co. 12 MI SSW of Bay City, TX 050-00498	IV	PWR-DRYAMB WEST 4LP BECH EBSO	3800	1280 (MDC)	12/22/1975 03/22/1988 08/25/1988 08/20/2027	OL-FP NPF-76	
South Texas 2 Houston Lighting & Power Co. 12 MI SSW of Bay City, TX 050-00499	IV	PWR-DRYAMB WEST 4LP BECH EBSO	0189	1250 (DER)	12/22/1975 12/15/1988 12/15/2028	OL-LP NPF-78	
St. Lucie 1 Florida Power & Light Co. 12 MI SE of Ft. Pierce, FL 050-00335	II	PWR-DRYAMB COMB CE EBSO EBSO	2700	0839 (MDC)	07/01/1970 03/01/1976 12/21/1976 03/01/2016	OL-FP DPR-67	
St. Lucie 2 Florida Power & Light Co. 12 MI SE of Ft. Pierce, FL 050-00389	II	PWR-DRYAMB COMB CE EBSO EBSO	2700	0839 (MDC)	05/02/1977 08/10/1983 08/08/1983 04/05/2023	OL-FP NPF-16	
Summer South Carolina Electric & Gas 26 MI NW of Columbia, SC 050-00395	II	PWR-DRYAMB WEST 3LP GIL DANI	2775	0885 (MDC)	03/21/1973 11/12/1982 01/01/1984 03/21/2022	OL-FP NPF-12	

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Surry 1 Virginia Power Co. 17 MI NW of Newport News, VA 050-00280	II	PWR-DRYSUB WEST 3LP SBW SBW	2441	0781 (MDC)	09/25/1968 05/25/1972 12/22/1972 05/25/2012	OL-FP DPR-32	
Surry 2 Virginia Power Co. 17 MI NW of Newport News, VA 050-00281	II	PWR-DRYSUB WEST 3LP SBW SBW	2441	0781 (MDC)	09/25/1968 01/29/1973 05/01/1973 01/29/2013	OL-FP DPR-37	
Susquehanna 1 Pennsylvania Power & Light Co. 7 MI NE of Berwick, PA 050-00387	I	BWR-MARK2 GE 4 BECH BECH	3293	1032 (MDC)	11/02/1973 11/12/1982 06/08/1983 07/17/2022	OL-FP NPF-14	
Susquehanna 2 Pennsylvania Power & Light Co. 7 MI NE of Berwick, PA 050-00388	I	BWR-MARK2 GE 4 BECH BECH	3293	1032 (MDC)	11/02/1973 08/27/1984 02/12/1985 03/23/2034	OL-FP NPF-22	
Three Mile Island 1 GPU Nuclear Corp. 10 MI SE of Harrisburg, PA 050-00289	I	PWR-DRYAMB B&W LLP GIL UEC	2535	0776 (MDC)	05/18/1969 04/19/1974 09/02/1974 05/18/2009	OL-FP DPR-50	
Trojan Portland General Electric Co. 32 MI N of Portland, OR 050-00344	V	PWR-DRYAMB WEST 4LP BECH BECH	3411	1095 (MDC)	02/09/1971 11/21/1975 05/20/1976 02/09/2011	OL-FP NPF-1	

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Turkey Point 3 Florida Power & Light Co. 25 MI S of Miami, FL 050-00250	II	PWR-DRYAMB WEST 3LP BECH BECH	2200	0666 (MDC)	04/27/1967 07/19/1972 12/14/1972 04/27/2007	OL-FP DPR-31	
Turkey Point 4 Florida Power & Light Co. 25 MI S of Miami, FL 050-00251	II	PWR-DRYAMB WEST 3LP BECH BECH	2200	0666 (MDC)	04/27/1967 04/10/1973 09/07/1973 04/27/2007	OL-FP DPR-41	
Vermont Yankee Vermont Yankee Nuclear Power Co. 5 MI S of Brattleboro, VT 050-00271	I	BWR-MARK1 GE 4 EBSO EBSO	1593	0504 (MDC)	12/11/1967 02/28/1973 11/30/1972 12/11/2007	OL-FP DPR-28	
Vogtle 1 Georgia Power Co. 26 MI SE of Augusta, GA 050-00424	II	PWR-DRYAMB WEST 4LP SBEC GPO	3411	1079 (MDC)	08/28/1974 03/16/1987 06/01/1987 01/16/2027	OL-FP NPF-68	
Vogtle 2 Georgia Power Co. 26 MI SE of Augusta, GA 050-00425	II	PWR-DRYAMB WEST 4LP SBEC GPO	0000	1101 (DER)	08/28/1974	CP CPPR-109	Under Active Construction
Washington Nuclear 1 Washington Public Power Supply 12 MI NW of Richland, WA 050-00460	V	PWR-DRYAMB B&W LLP UEC BECH	0000	1288 (DER)	12/24/1975	CP CPPR-134	Construction Halted

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Washington Nuclear 2 Washington Public Power Supply 12 MI NW of Richland, WA 050-00397	V	BWR-MARK2 GE S B&R BECH	3323	1095 (MDC)	03/19/1973 04/13/1984 12/13/1984 12/20/2023	OL-FP NPF-21	
Washington Nuclear 3 Washington Public Power Supply 28 MI W of Olympia, WA 050-00508	V	PWR-DRYAMB COMB CE80 EBSO EBSO	0000	1242 (DER)	04/11/1978	CP CPPR-154	Construction Halted
Waterford 3 Louisiana Power & Light Co 20 MI W of New Orleans, LA 050-00382	IV	PWR-DRYAMB COMB CE EBSO EBSO	3390	1075 (MDC)	11/14/1974 03/16/1985 09/24/1985 12/18/2024	OL-FP NPF-38	
Watts Bar 1 Tennessee Valley Authority 10 MI S of Spring City, TN 050-00390	II	PWR-ICECND WEST 4LP TVA TVA	0000	1165 (DER)	01/23/1973	CP CPPR-91	Under Active Construction
Watts Bar 2 Tennessee Valley Authority 10 MI S of Spring City, TN 050-00391	II	PWR-ICECND WEST 4LP TVA TVA	0000	1165 (DER)	01/23/1973	CP CPPR-92	Under Active Construction
Wolf Creek 1 Wolf Creek Nuclear Operating Co. 3.5 MI NE of Burlington, KS 050-00482	IV	PWR-DRYAMB WEST 4LP BECH DANI	3411	1128 (MDC)	05/31/1977 06/04/1985 09/03/1985 03/11/2025	OL-FP NPF-42	

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UNIT OPERATING UTILITY LOCATION DOCKET NUMBER	NRC REGION	CONTYPE NSSS AE CONST	LIC MWT	MDC NET OR DER	CP ISSUED OL ISSUED COMM. OP EXP. DATE	LICENSE TYPE & NUMBER	REMARKS
Yankee-Rowe Yankee Atomic Electric Co. 21 MI NE of Pittsfield, MA 050-00029	I	PWR-DRYAMB WEST 4LP S&W S&W	0600	0167 (MDC)	11/04/1957 12/24/1963 07/01/1991 07/09/2000	OL-FP DPR-3	
Zion 1 Commonwealth Edison Co. 40 MI N of Chicago, IL 050-00295	III	PWR-DRYAMB WEST 4LP S&L CWE	3250	1040 (MDC)	12/26/1968 10/19/1973 12/31/1973 12/26/2008	OL-FP DPR-39	
Zion 2 Commonwealth Edison Co. 40 MI N of Chicago, IL 050-00304	III	PWR-DRYAMB WEST 4LP S&L CWE	3250	1040 (MDC)	12/26/1968 11/14/1973 09/17/1974 12/26/2008	OL-FP DPR-48	

COMMERCIAL NUCLEAR POWER PLANTS
FORMERLY LICENSED TO OPERATE

UNIT NAME	INITIAL OPERATING LICENSE DATE	FIRST ELECTRICAL GENERATION DATE	SHUTDOWN DATE
DRESDEN 1	06/28/59	04/15/60	10/31/78
HALLAM	01/02/62	05/29/63	09/01/64
INDIAN POINT 1	03/26/62	09/16/62	10/31/74
PIQUA	08/23/62	11/04/63	01/01/66
HUMBOLDT BAY	08/28/62	04/18/63	07/02/76
ELK RIVER	11/08/62	08/24/63	02/01/68
CVTR	11/27/62	12/16/63	01/01/67
FERMI 1	05/10/63	08/05/66	11/29/72
PATHFINDER	03/12/64	07/25/66	10/01/67
BONUS	04/02/64	08/14/64	08/01/68
PEACH BOTTOM 1	01/24/66	01/27/67	11/01/74
LA CROSSE	07/03/67	04/28/68	04/30/87
THREE MILE ISLAND 2	02/08/78	04/21/78	03/28/79

SOURCE: NRC 1/31/89

REACTOR CANCELLATIONS*
UNITS UNDER CONSTRUCTION PERMIT REVIEW

PLANT	UTILITY	TYPE	MWE/PER UNIT	DATE
TYRONE 2	NORTHERN STATES POWER	PWR	1280	FY-75
GUANICASSEE 1 & 2	CONSUMERS POWER	PWR	1150	FY-75
PILGRIM 3	BOSTON EDISON	PWR	1180	FY-75
BARTON 3 & 4	ALABAMA POWER & LIGHT	BWR	1188	FY-87
SUMMIT 2	DELMARVA POWER & LIGHT	HTGR	1200	FY-77
ALLENS CREEK 2	HOUSTON LIGHTING AND POWER COMPANY	BWR	1213	FY-77
BLUE HILLS 1 & 2	GULF STATES UTILITIES	PWR	918	FY-78
SUMMIT 1	DELMARVA POWER AND LIGHT	HTGR	1200	FY-78
SUNDESERT 1 & 2	SAN DIEGO GAS AND ELECTRIC	PWR	974	FY-78
DOUGLAS POINT 2	POTOMAC ELECTRIC POWER	BWR	1148	FY-78
BARTON 1 & 2	ALABAMA POWER & LIGHT	BWR	1159	FY-78
FORT CALHOUN 2	OMAHA PUBLIC POWER DISTRICT	PWR	1138	FY-78
HAVEN 2 (formerly KOSHKONONG 2)	WISCONSIN ELECTRIC POWER CO.	PWR	900	FY-79
ATLANTIC 1 & 2	PUBLIC SERVICE ELECTRIC AND GAS	PWR	1150	FY-79
GREENE COUNTY	POWER AUTHORITY OF STATE OF NEW YORK	PWR	1191	FY-79
PALO VERDE 4 & 5	ARIZONA PUBLIC SERVICE	PWR	1270	FY-79
DOUGLAS POINT 1	POTOMAC ELECTRIC POWER	BWR	1148	FY-79
FULTON 1 & 2	PHILADELPHIA ELECTRIC	HTGR	1160	FY-79
NORTH COAST 2	PUERTO RICO WATER RESOURCES AUTHORITY	PWR	983	FY-79
ERIE 1 & 2	OHIO EDISON CO.	PWR	1260	FY-80
DAVIS-BESSE 2 & 3	TOLEDO EDISON CO.	PWR	908	FY-80
NEW ENGLAND 1 & 2	NEW ENGLAND POWER	PWR	1194	FY-80

SOURCE: NRC 1/31/89

REACTOR CANCELLATIONS*
UNITS UNDER CONSTRUCTION PERMIT REVIEW

PLANT	UTILITY	TYPE	MWE/PER UNIT	DATE
HAVEN 1 (formerly KOSHKONONG 1)	WISCONSIN ELECTRIC POWER CO.	PWR	900	FY-80
GREENWOOD 2 &3	DETROIT EDISON	PWR	1200	FY-80
MONTAGUE 1 & 2	NORTHEAST NUCLEAR ENERGY CO.	BWR	1150	FY-81
NEW HAVEN 1 & 2	NEW YORK STATE ELECTRIC & GAS	PWR	1250	FY-81
PILGRIM 2	BOSTON EDISON	PWR	1180	FY-81
PERKINS 1, 2 & 3	DUKE POWER	PWR	1280	FY-82
BLACK FOX 1 & 2	PUBLIC SERVICE OF OKLAHOMA	BWR	1150	FY-82
ALLENS CREEK 1	HOUSTON LIGHTING & POWER	PWR	1160	FY-82
PEBBLE SPRINGS 1 & 2	PORTLAND GENERAL ELECTRIC	PWR	1280	FY-83
SKAGIT/HANFORD 1 & 2	PUGET SOUND POWER & LIGHT	PWR	1277	FY-83
CLINCH RIVER	PROJECT MANAGEMENT CORP.; DOE; TVA	LMFBR	350	FY-84

*CANCELLATION IS DEFINED AS PUBLIC ANNOUNCEMENT OF CANCELLATION OR WRITTEN NOTIFICATION TO NRC.
ONLY DOCKETED APPLICATIONS ARE INDICATED.

REACTOR CANCELLATIONS*
UNITS WITH CONSTRUCTION PERMITS

PLANT	UTILITY	TYPE	MWE/PER UNIT	DATE
VOGTLE 3 & 4	GEORGIA POWER	PWR	1160	FY-76
SURRY 3 & 4	VIRGINIA ELECTRIC & POWER	PWR	882	FY-77
TYRONE 2	NORTHERN STATES POWER	PWR	1160	FY-79
STERLING 1	ROCHESTER GAS & ELECTRIC CORP.	PWR	1160	FY-80
FORKED RIVER	JERSEY CENTRAL POWER & LIGHT	PWR	1070	FY-81
NORTH ANNA 4	VIRGINIA ELECTRIC & POWER CO.	PWR	907	FY-81
JAMESPORT 1 & 2	LONG ISLAND LIGHTING CO.	PWR	1160	FY-81
BAILLY 1	NORTHERN INDIANA PUBLIC SERVICE	BWR	660	FY-81
CALLAWAY 2	UNION ELECTRIC	PWR	1160	FY-82
HARRIS 3 & 4	CAROLINA POWER & LIGHT	PWR	913	FY-82
HOPE CREEK 2	PUBLIC SERVICE ELECTRIC & GAS	BWR	1067	FY-82
WASH. NUCLEAR 4	WASH. PUBLIC POWER SUPPLY SYSTEM	PWR	1267	FY-82
WASH. NUCLEAR 5	WASH. PUBLIC POWER SUPPLY SYSTEM	PWR	1242	FY-82
PHIPPS BEND 1 & 2	TENNESSEE VALLEY AUTHORITY	BWR	1220	FY-82
HARTSVILLE B1 & B2	TENNESSEE VALLEY AUTHORITY	BWR	1205	FY-82
NORTH ANNA 3	VIRGINIA ELECTRIC & POWER CO.	PWR	907	FY-83
CHEROKEE 2 & 3	DUKE POWER	PWR	1280	FY-83
CHEROKEE 1	DUKE POWER	PWR	1280	FY-83
CLINTON 2	ILLINOIS POWER	BWR	950	FY-84
HARRIS 2	CAROLINA POWER & LIGHT	PWR	915	FY-84
ZIMMER	CINCINNATI GAS & ELECTRIC	BWR	810	FY-84
RIVER BEND 2	GULF STATES UTILITIES	BWR	934	FY-84
HARTSVILLE A1 & A2	TENNESSEE VALLEY AUTHORITY	BWR	1205	FY-84
YELLOW CREEK 1 & 2	TENNESSEE VALLEY AUTHORITY	BWR	1205	FY-84
MARBLE HILL 1 & 2	PUBLIC SERVICE OF INDIANA	PWR	1130	FY-85
MIDLAND 1 & 2	CONSUMERS POWER CORPORATION	PWR	818	FY-86
SEABROOK 2	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	PWR	1198	FY-89

*CANCELLATION IS DEFINED AS PUBLIC ANNOUNCEMENT OF CANCELLATION OR WRITTEN NOTIFICATION TO NRC. ONLY DOCKETED APPLICATIONS ARE INDICATED. PRIOR TO FY-76 NO UNITS WERE CANCELLED WHICH HAD RECEIVED CONSTRUCTION PERMITS.

SOURCE: NRC 1/31/89

NUCLEAR POWER REACTORS BY LICENSEE

UTILITY	PLANT	UTILITY	PLANT
Alabama Power Co.	Farley 1 & 2	Florida Power Corporation	Crystal River 3
Arizona Public Service	Palo Verde 1, 2 & 3	Georgia Power	Hatch 1 & 2
Arkansas Power & Light	Arkansas 1 & 2	Georgia Power	Vogtle 1 & 2
Baltimore Gas & Elec	Calvert Cliffs 1 & 2	GPU Nuclear Corporation	Three Mile Island 1
Boston Edison	Pilgrim 1	GPU Nuclear Corporation	Oyster Creek 1
Carolina Power & Light	Brunswick 1 & 2	Gulf States Utilities	River Bend 1
Carolina Power & Light	Harris 1	Houston Lighting & Power Company	South Texas 1 & 2
Carolina Power & Light	Robinson 2	Illinois Power	Clinton 1
Cleveland Electric Illuminating	Perry 1 & 2	Indiana & Michigan Electric	Cook 1 & 2
Commonwealth Edison	Braidwood 1 & 2	Iowa Electric Power & Light	Duane Arnold
Commonwealth Edison	Byron 1 & 2	Long Island Lighting Co.	Shoreham
Commonwealth Edison	Dresden 2 & 3	Louisiana Power & Light	Waterford 3
Commonwealth Edison	LaSalle 1 & 2	Maine Yankee Atomic Power	Maine Yankee
Commonwealth Edison	Quad Cities 1 & 2	Nebraska Public Power District	Cooper Station
Commonwealth Edison	Zion 1 & 2	Niagara Mohawk Power Corp.	Nine Mile Point 1 & 2
Connecticut Yankee Atomic Power	Haddam Neck	Northeast Nuclear Energy Co.	Millstone 1, 2 & 3
Consolidated Edison	Indian Point 2	Northern States Power	Monticello
Consumers Power	Big Rock Point 1	Northern States Power	Prairie Island 1 & 2
Consumers Power	Palisades	Omaha Public Power District	Fort Calhoun 1
Detroit Edison	Fermi 2	Pacific Gas & Electric	Diablo Canyon 1 &2
Duke Power	Catawba 1 & 2	Pennsylvania Power & Light	Susquehanna 1 & 2
Duke Power	McGuire 1 & 2	Philadelphia Electric	Limerick 1 & 2
Duke Power	Oconee 1, 2 & 3	Philadelphia Electric	Peach Bottom 2 & 3
Duquesne Light	Beaver Valley 1 & 2	Portland General Electric	Trojan
Florida Power & Light	St. Lucie 1 & 2	New York Power Authority	Fitzpatrick
Florida Power & Light	Turkey Point 3 & 4		

NUCLEAR POWER REACTORS BY LICENSEE

UTILITY	PLANT	UTILITY	PLANT
New York Power Authority	Indian Point 3		
Public Service Electric & Gas	Hope Creek 1		
Public Service Electric & Gas	Salem 1 & 2		
Public Service of Colorado	Fort St. Vrain		
Public Service of New Hampshire	Seabrook 1		
Rochester Gas & Electric	Ginna		
Sacramento Mun. Util. District	Rancho Seco 1		
South Carolina Electric & Gas Co.	Summer 1		
Southern California Edison	San Onofre 1, 2 & 3		
System Energy Resources, Inc.	Grand Gulf 1 & 2		
Tennessee Valley Authority	Bellefonte 1 & 2		
Tennessee Valley Authority	Browns Ferry 1, 2 & 3		
Tennessee Valley Authority	Sequoyah 1 & 2		
Tennessee Valley Authority	Watts Bar 1 & 2		
Texas Utilities Electric Co.	Comanche Peak 1 & 2		
Toledo Edison Company	Davis-Besse 1		
Union Electric	Callaway 1		
Vermont Yankee Nuclear Power	Vermont Yankee 1		
Virginia Power	North Anna 1 & 2		
Virginia Power	Surry 1 & 2		
Wash. Public Power Supply System	WNP 1, 2 & 3		
Wisconsin Electric Power Company	Point Beach 1 & 2		
Wisconsin Public Service	Kewaunee		
Wolf Creek Nuclear Operating Corp.	Wolf Creek 1		
Yankee Atomic Electric	Yankee Rowe 1		

WORLD LIST OF NUCLEAR POWER REACTORS

Country	Reactors Operating (Net MWe)	Reactors Under Construction Or On Order (Net MWe)	Total Reactors (Net MWe)
Argentina	2 (935)	1 (692)	3 (1,627)
Belgium	7 (5,493)	-- --	7 (5,493)
Brazil	1 (626)	2 (2,468)	3 (3,094)
Bulgaria	5 (2,886)	3 (2,858)	8 (5,444)
Canada	18 (11,882)	4 (3,524)	22 (15,386)
China	-- --	3 (2,100)	3 (2,100)
Cuba	-- --	2 (880)	2 (880)
Czechoslovakia	8 (3,264)	6 (5,120)	19 (8,734)
Finland	4 (2,360)	-- --	4 (2,360)
France	52 (49,308)	11 (14,180)	63 (62,488)
Germany - East	5 (1,702)	6 (3,432)	11 (5,134)
Germany - West	21 (21,382)	3 (2,803)	24 (24,185)
Hungary	4 (1,866)	2 (2,000)	6 (3,866)
India	6 (1,154)	8 (1,760)	14 (2,914)
Italy	2 (1,120)	3 (1,999)	5 (3,119)
Japan	36 (26,857)	19 (17,635)	55 (44,492)
Korea	8 (6,300)	3 (2,820)	11 (9,120)
Mexico	-- --	2 (1,308)	2 (1,308)
Netherlands	2 (507)	-- --	2 (507)
Pakistan	1 (125)	-- --	1 (125)
Philippines	-- --	1 (620)	1 (620)
Poland	-- --	8 (5,736)	8 (5,736)
Romania	-- --	5 (3,100)	5 (3,100)

SOURCE: NUCLEAR NEWS 2/89

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WORLD LIST OF NUCLEAR POWER REACTORS

Country	Reactors Operating (Net MWe)		Reactors Under Construction Or On Order (Net MWe)		Total Reactors (Net MWe)	
South Africa	2	(1,840)	—	—	2	(1,840)
Spain	10	(7,526)	7	(6,822)	17	(14,348)
Sweden	12	(9,667)	—	—	12	(9,667)
Switzerland	5	(2,951)	—	—	5	(2,951)
Taiwan	6	(4,884)	—	—	6	(4,884)
United Kingdom	41	(13,468)	2	(1,875)	43	(15,343)
USA*	111	(98,000)	12	(14,000)	123	(112,000)
USSR	50	(36,253)	23	(22,703)	73	(58,956)
Yugoslavia	1	(620)	—	—	1	(620)
TOTAL	420	(311,434)	138	(120,436)	558	(431,870)

*For USA Data NRC 2/89

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BIBLIOGRAPHIC DATA SHEET

NUREG-1350, Vol. 1

NUCLEAR REGULATORY COMMISSION 1989 INFORMATION DIGEST

K. A. McGrath and Others

Division of Budget and Analysis
Office of the Controller
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Same as Item 7 Above

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March 1989

Annual

The Nuclear Regulatory Commission 1989 Information Digest provides summary information regarding the US NRC, its regulatory responsibilities, and the areas licensed by the Commission. This is the first of an annual publication for the general use of the NRC staff and is available to the public. The Digest is divided into two parts: the first presents an overview of the Nuclear Regulatory Commission and the second provides data on commercial nuclear reactor licensees, as well as on worldwide commercial nuclear reactors.

Information Digest

NRC 1989 Information Digest

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